

NHANES Open Space

September 11-12, 2003

Session Title: Energy Balance and Obesity Prevention

Session Headlines:

Need support for innovation. Referring to OPEN study. Social and Epi elements – which issues are important to focus on. Assessment methodologies – questions on how to support these. NIH initiatives ongoing.

Longitudinal studies important– identify sub-cohort to measure:

Weight

Energy balance

Components of energy balance (in and out)

What has to be done by questionnaires vs. examination?

Diet by questionnaires. Energy balance by doubly-labelled water, etc.

Currently, monitors are being worn by 60 and above. Good response rates. Monitors vertical acceleration. Fitness component for 12-49 – treadmill data. Muscle strength data as well from 1999-2002.

NCI funding physical activity monitor study. Pilot study was done to see how well it would work.

How do we measure energy intake? May need to call for more innovative pilots. What is the feasibility of moving forward? At NIH, trying to get producers of doubly-labelled water to make it more available.

Call for other groups to move methodologies forward. Need doubly-labelled water, even for just short time to see how monitors are working. It is important, despite being so expensive and limited supply.

Explanation of doubly-labelled water – measure of energy expenditure to equate to energy intake. Very safe and best out there.

Data collection just being completed on doubly-labeled water and dietary intakes at NHANES data. One more year of analysis.

ARS and NCHS partnership – more partnerships of this nature.

Description of pilots would be helpful. Look at populations and environments – urban planning, etc.

NHANES needs to work with other agencies, i.e. airlines.

Transportation group – look at transportation issues and how they relate to obesity.

How is nutrition coordinated across agencies? Product safety commission, i.e. infant carrier seats. Theme of communication to other agencies.

Collaboration between NCI and NHANES – how did it come about? NCI had long-standing registries – and needed extension to other databases. National experts in surveillance to find dietary surveillance. Bringing in experts and seeing what needs to be done. Need people who understand surveillance.

Both BIA and DEXA going forward. Sample of 8 and above getting DEXA. Piloting new components – physical fitness age protocol is currently 12- 49. Expert panel recommended expanding age range. Concern about exclusion criteria – not performed in a clinical setting and want it to be safe. After 6 years, can improve. NCI began funding physical fitness component in 2003. Still need to discuss budget for the future. Possibly another type of piloting – questionnaires to include more people.

Collecting data in the older populations is important.

CV fitness measurements – questions regarding any attempt to measure HR over different time spans. Not being done at this time. HR monitors more complicated.

Regarding health info on labels - Important to know where everyone is getting his or her messages. Are people reading labels or using food pyramid? Questions regarding health disparities with minorities. That will be discussed in another session.

You can't tell if people are reading labels. Discussion about portion sizes. In Canada, estimated millions to change labels – don't know if it will have an impact. Question if changing portion size will have an impact on eating habits. What happens when you expose preschoolers to large portions- they eat more?

Next Steps/Action Items:

Forum to prioritize which innovations and methodologies need to be done in an unbiased fashion.

Find a decreased cost methodology of measuring total energy balance, other than doubly-labelled water.

Link with bioengineering groups. Technology exists. Problem is that people forget to use monitors. Now make in gel packs/sensors and could be potentially easier to use. Tracking technologies also available. Need the right scientists to link the technologies. Photo electric cells to put in buttons – this has been discussed from someone 5 yrs ago from MIT. Sensors to

measure energy expenditure. Need right people with funding. Problems are solvable but need to convince – need engineers, nutritionists, etc. to determine the studies that need to be done. Present to NHANES.